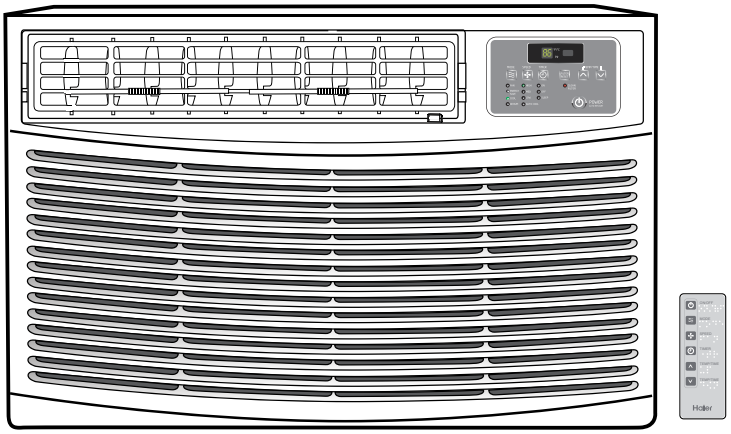
Haier SERVICE MANUAL

Order No.AC0812S001V1



Model No.

HWE18VCN

- **Feature**
- Top Discharge Airflow Pattern
- Modern Family-look Design
- 3 Cool Settings, 3 Fan Settings
- Slide Out chassis
- Easy-Access Washable Filter
- Digital Time & Temperature Display
- 24 Hour on/off Timer

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death

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Haier Group

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1.Product Code Illumination and Series introduction

1). Model identification:

H	W	□	□□	□	□	□
A	B	C	D	E	F	G

A: Abbreviation of Haier

B: Abbreviation of Window

C: E(R)-Remote Control

F-Mechanical Control

D: Nominal cooling capacity (BTU/h) with the first two numbers based on one thousand unit

E: The type of power supply

X - 115V/60HZ

V - 208/220V/60HZ

F: Function code

C - Cooling only

H - Heating pump

E - Electric aided heating

G: Design code

Examples:

HWE18VCN

It represents remote control window air conditioner. Cooling capacity is 18000/17800 BTU/h and the power supply is 230/208/60Hz.

2). Standard situation/conditions

No.	Operating condition	Indoor air state		outdoor air state	
		D.B. ℃	W.B. ℃	D.B. ℃	W.B. ℃
1	Nominal cooling	26.7	19.4	35	23.9

2. Specification

Item			Unit	HWE18VCN
Cooling capacity			BTU/h	18000/17800
Heating capacity			BTU/h	/
Power supply				1PH 230/208V 60HZ
Cooling		Power input	W	1680/1660
		Running current	A	7.2/8.2
		EER	BTU/(h·W)	10.7/10.7
Heating		Power input	W	/
		Running current	A	/
		COP	BTU/(h·W)	/
Sound Level		Indoor side	dB(A)	57
		Outdoor side	dB(A)	61
Net dimensions		Height	inches	16 3/4
		Width	inches	24 3/8
		Depth	inches	23 7/16
Packaging dimensions		Height	inches	20 7/8
		Width	inches	27 1/8
		Depth	inches	28 3/4
Weight		Net	lbs	110.5
		Gross	lbs	124.6
Compressor		Type		TOSHIBA
		Model	/	PA165M2C-3ETU
		Running cap. For comp.	μF	40/450
Pressure		Hi-Pressure	Psig	560
		Low-Pressure	Psig	270
Refrigerant		Model	R22 or R410A	R410A
		Charge	OZ	30
Fan	Type	Indoor unit	/	centrifugal
		Outdoor unit	/	axial
	Fan Speed	Indoor unit	r/min	1060/990/940
Air volume			CFM	420/390/370
Moisture removal			Pints/hr	5.3

3. Safety and Precaution

WARNING: Following these basic precautions will reduce the risk of fire ,electrical shock ,injury or death when using your air conditioner .

1) Air conditioner must be connected to proper electrical outlet with the correct electrical supply .

2) Proper grounding must be ensured to reduce the risk of shock and fire .
DO NOT CUT OR REMOVE THE GROUNDING PRONG.
If you do not have a three-prong electric receptacle outlet in the wall, have a certified electrician install the proper receptacle . The wall receptacle MUST be properly grounded .

3) DO not use if power cord is frayed or damage . Also avoid using if there are cracks or abrasion damage along the length ,plug or connector .

4)DO NOT USE AN ADAPTER OR AN EXTENSION CORD.

5)When installing your air conditioner in a window,make sure the window is strong enough to hold the weight of the air conditioner.You also want to secure and correctly install your air conditioner property to prevent it from falling.Extra brackets or support may be required depending on your window.

6) Do not black airflow inside or outside the air conditioner with blinds,drapes,protective covers,shrubs or bushes.

7)Be careful of sharp edges on the front and rear fins of the unit that could cut and cause serious injury.

8)Be careful when lifting the air conditioner to install or remove the unit . Always use two or more people for this .

9)Always unplug the air conditioner before servicing it or moving it .

4.Warning and Cautions

WARNINGS: Following the safety messages is very important.

These messages can save you from being injured or killed. Warning symbols alert you to be careful and means Danger . Always follow instructions to be safe and reduce chances of injury or death . Warning and Danger signs will precede safety messages.

Electrical Safety

GROUNDING: This room air conditioner must be grounded. Grounding reduces the risk of electric shock by providing an escape wire for the electric current. The power cord has a grounding wire with a grounding plug . Plug it into an outlet that is properly installed and grounded.

WARNING: Improper use of the grounding plug can result in a risk of electric shock.

Call a qualified electrician if you don't understand the grounding instructions or if you are not sure if the air conditioner is properly grounded. If the wall outlet is not grounded, please contact an electrician to have it replaced with a proper grounded outlet.

Do not, under any circumstances, cut or remove the third (ground) prong from the power cord.

Adapter Plug: We strongly advise against using an adapter plug.

TIPS

This air conditioner is designed for use in a double hung window.
While installing unit be sure to tilt air conditioner 5 degrees outward to have the water drip outside the house.
Install the unit on the north side, as that is normal the shaded side. This will enhance the operation of your unit.
The window has to be strong for installation. Extra brackets and/or support may be reqired depending on your window. (Brachets and supports not included in all models.)
Masure the window before installing. If the window is too big for the unit, you may require professional installation.
Use the correct electric voltage and proper ampere for the unit to run effectively.
Only let a certified electrician modify your electrical outlet.
Use a dedicated line fot the operation of your air conditioner to avoid the possibility of an electrical surge.

Energy Saving Guide

When installing your air conditioner, make sure to seal all areas where there is a possibility of air leakage.
The airflow should not be blocked either inside by curtains, drapes or furniture, or outside bu shrubs or bushes.
Do not needlessly use electrical light or other appliances that produce heat.
Keep the blinds and drapes drawn on all other windows.
While cooking, use an exhaust fan in the kitchen to remove the excess heat.
Always use the correct BTU size air conditioner to cool the room to attain optimum efficiency.

5. Installation and Accessory Parts

Check the following before you install your air conditioner:

1) The unit is free of all obstructions inside and outside the room e.g. drapes, curtains, furniture, plants, shrubs, bushes, trees, other structures like building, garage etc.
Air conditioner must have clear unobstructed airflow through the condenser to remove the heat.

2) The window is strong enough to hold the weight of the air conditioner. Extra brackets or supports may be needed depending on your windows. Brackets or supports not not provided in all models.

3) The window sill and track are strong enough to hold the weight of the air conditioner.

4) The wall is strong enough to hold the unit. Extra brackets or supports may be needed depending on the wall. (Brackets or Supports not provided in all models).

5) There is adequate and proper power supply near the air conditioner.

6) DO NOT use adopter plugs.

7) DO NOT use extension cords.

8) DO NOT cut or remove the ground prong.

9) DO NOT modify the plug or the electrical wall outlet in any way. If plug does not fit the electrical outlet have a certified electrician do the necessary change.

10) NOT connect electrical power to the unit before installation.

11) DO NOT use if power cord is worn out, hayed or damage. Avoid using if here are cracks or abrasion damage along the length, plug or connection.

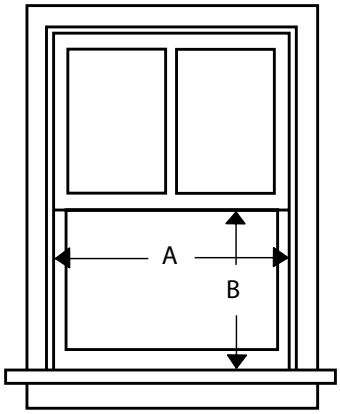
12) DO NOT install into any existing cabinet or sleeve which does not have ride and top air vents.

13) Be careful of exposed sharp edges of the cabinet and sharp coils (fins) on the back of the unit that could cut and cause serious injury.

Window Installation

Window opening measurements:

- 28 3⁄8 ” minimum to 38” (72.1 cm to 96.5 cm) maximum opening width.
- 17 3⁄8 ” (44.1 cm) minimum opening height.



A. 28⅜” (72.1 cm) minimum

B. 17⅜” (44.1 cm) minimum

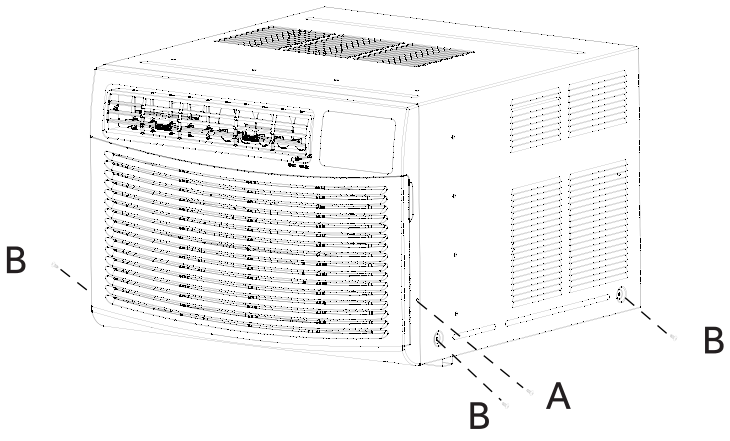
Prepare Air Conditioner for Installation

Prepare unit for installation

Unpack unit in the floor near the installation location.

1. Remove the two front attachment screws (A). Keep these screws for later use. Separate the cabinet from the front panel.
2. Remove the two screws per side (B) found at the bottom of the outer cabinet. Using the basepan handle, slowly and evenly pull out the chassis from the cabinet. Use two or more people to move the air conditioner.

CAUTION: Never expose plastic front or grille to extreme temperatures.



CAUTION:

Never expose plastic front or grille to extreme temperatures.

Assemble and install side curtains and top channel

1. Install the top channel with four (4) 7/16” self-tapping screws.
2. Slide left-hand curtain assembly into left side of top and bottom channels. Repeat for right-hand curtain assembly.
3. Fasten curtain retainer strips to the sides of the cabinet with eight (8) 7/16” self-tapping screws. (4) Self tapping screws on each side.

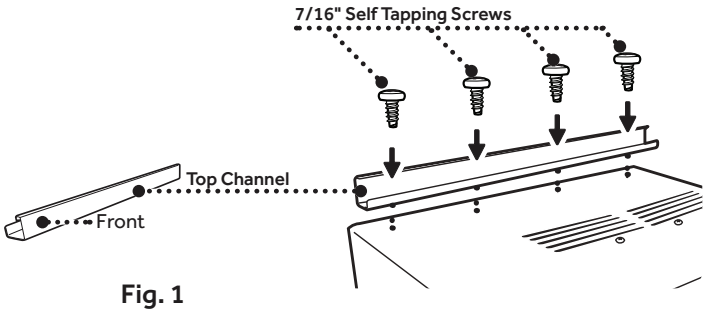


Fig. 1

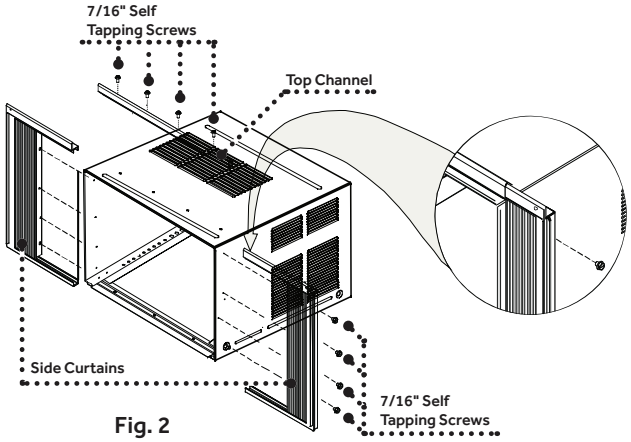
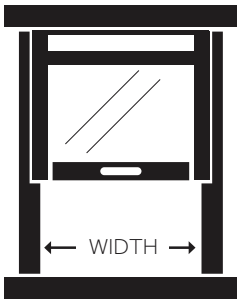


Fig. 2

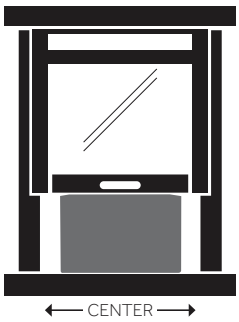
Prepare Window for Installation

1. Measure the width of the window opening.



WIDTH OF
WINDOW OPENING

2. Mark the center line on the inside windowsillwith a pencil.



CENTER LINE

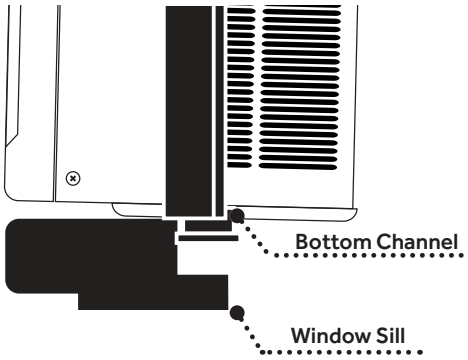
NOTES:

- Be sure your air conditioner does not fall out of the opening during installation or removal. A grounded electrical outlet must be within 4 ft. (122 cm) of where the power supply cord exits the air conditioner.
- Do not block the air discharge or air intake areas on the front panel.
- Do not block the louvers on the outside of the air conditioner.

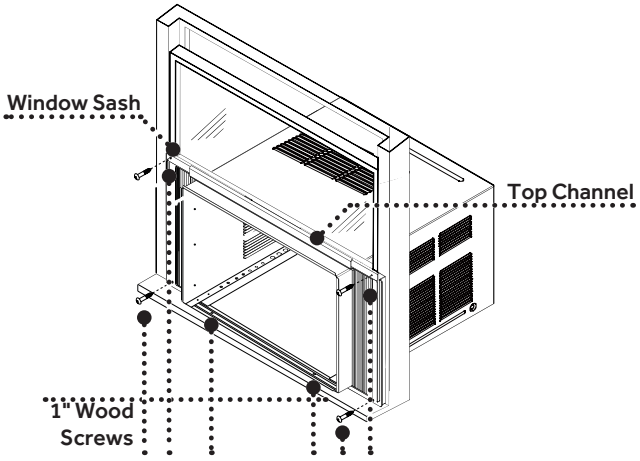
INSTALL THE CABINET IN THE WINDOW

1. Center the cabinet in the windowsill. Make sure to place the cabinet so that it is resting on the windowsill with a ¼" to ½" downward tilt towards the outside. Lower the window sash behind the front flange of the top channel to hold the unit in place. The bottom channel must rest behind the window sill.

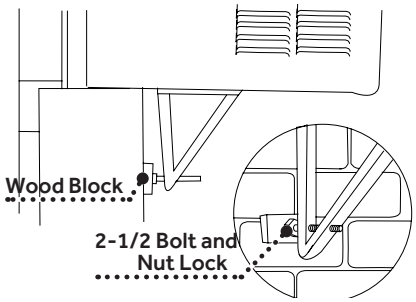
NOTE: The appearance of your model may differ from the one shown.



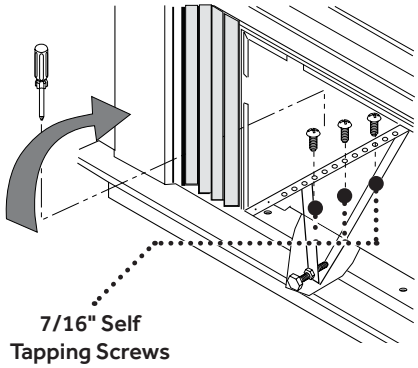
2. Expand both curtains so they contact the side window frame. Install four (4) 1” wood screws, two (2) in the upper corners of the curtains and two (2) in the lower corners of the curtain.
3. Use three (3) 1” wood screws to secure the cabinet, 1 to the window sash, 2 to the window sill.



4. Install two(2)-1/2” leveling bolts to the left and right brackets.



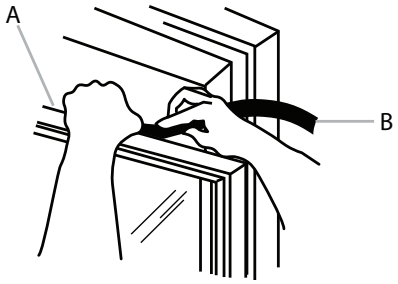
5. Secure cabinet to left and right brackets using six (6) 7/16” bracket screws. 3 on each side.



6. Adjust two (2)-1/2" leveling bolts to proper length and use nut lock to secure bolt. Use a wood block between the leveling bolts and the wall if required.

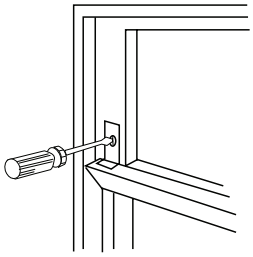
COMPLETE THE INSTALLATION

1. Uncoil the included foam seal.
2. Insert the foam seal behind the top of the lower window sash and against the glass of the upper window.



A. Top of lower window sash
B. Foam seal

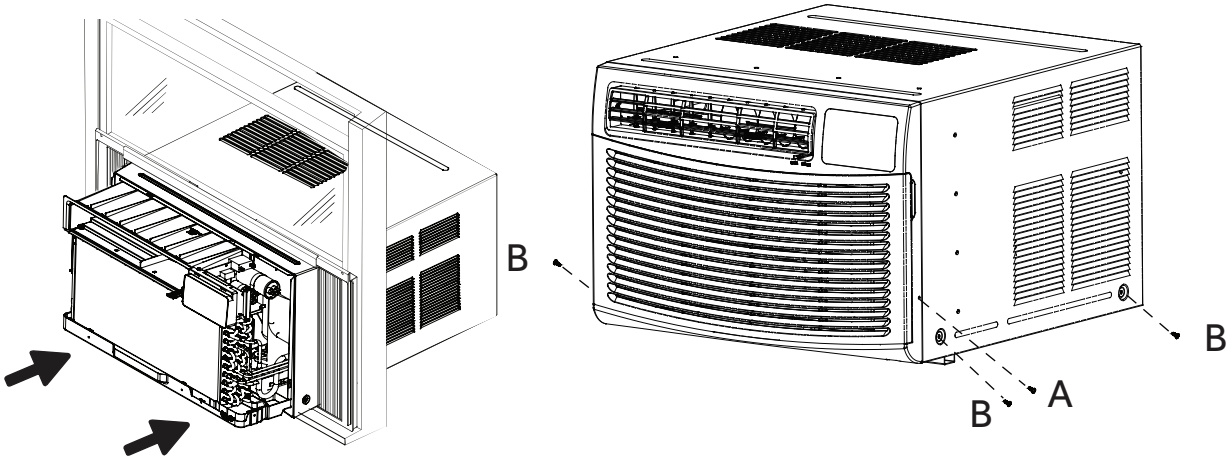
3. Place the window lock bracket as shown. Use one(1) 1⁄8 ” drill bit to drill a starter hole through the hole in the window lock bracket and into the upper window sash.
4. Attach the window lock bracket to the upper window with one (1) 1” wood screw to secure the window in place.



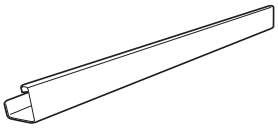
INSTALLING THE CHASSIS TO THE CABINET

When moving or lifting the air conditioner chassis, use two or more people. Wear gloves when handling the air conditioner to protect against possible sharp edges and metal fins.

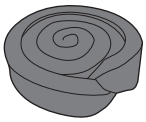
1. Pick up the chassis carefully and evenly.
2. Slide the chassis into the cabinet.
3. Reinstall the front panel.
4. Secure the front panel to the chassis using the screws removed at the start of the installation. (A)
5. Reinstall two of the screws removed from the cabinet at the start of the installation. (B)
6. Plug the unit in. Press RESET on the power supply cord. A green light will come on. See “Electrical Requirements."



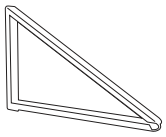
Parts



Top channel

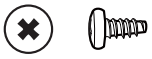


Foam seal

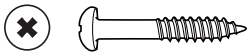


Installation brackets

Window lock bracket

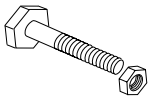


7/16" self tapping screws(12)

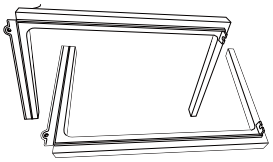


1" wood screws(8)

7/16" bracket screws(6)



2-1/2" bolt and lock nut



Side curtain frames(2)

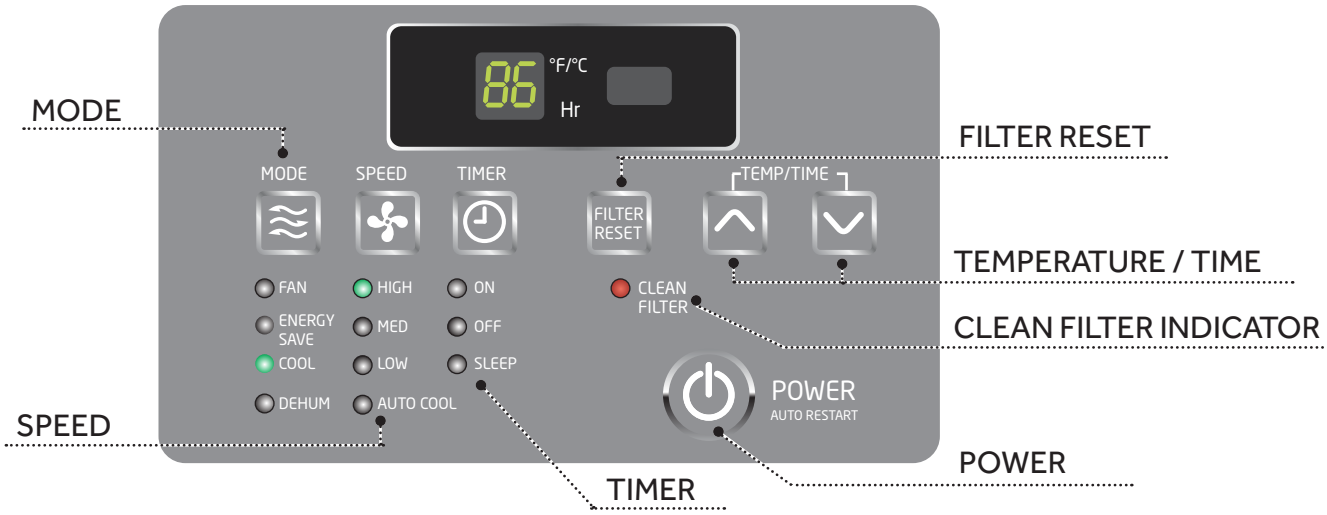
Remote control

Tools

Read and follow the instructions provided with any tools listed here.

- ☐ Phillips head screwdriver
- ☐ Flat-blade screwdriver
- ☐ Scissors
- ☐ Level
- ☐ Socket wrench & sockets
- ☐ Tape measure
- ☐ Cordless drill and 1/8" bit
- ☐ Pencil
- ☐ Pliers
- ☐ Adjustable wrench

6. Parts and Functions



MODE

1. Press mode until you see the indicator light come on next to the desired setting.
2. Choose Fan, Cool, Energy Save or Dehum.

- Fan—Only the fan runs. Press SPEED to select High, Med or Low fan speed. The display shows the current room temperature.
- Energy Save—In this mode the fan runs only when cooling is needed. The fan will run for 3 minute after the compressor shuts off. The fan then cycles on for 1 or 2 minutes at 10 minute intervals until the temperature in the room is above the set temperature. The compressor then turns back on.
- Cool—Cools the room. Press SPEED to select High, Med , Low or Auto Cool speed. Press the TEMP/TIME up or down arrow button to adjust the temperature.
- Dehum—Aids in removing humidity from the room. This setting will NOT cool the room.

SPEED

1. Press FAN SPEED until; you see the indicator light come on next to the desired setting.
2. Choose High, Med, Low or Auto Cool
   - High—For maximum cooling
   - Med—For normal cooling
   - Low—For minimum cooling
   - Auto Cool—Adjusts the fan speed automatically to provide ideal cooling based on the room temperature.

TIMER

To set the air conditioner to turn off between 1 hour and 24 hours (The air conditioner must be ON to set):

1. Press TIMER. Timer Off indicator light will flash. The display will show the remaining hours before the air conditioner will turn off.
2. Press the TEMP/TIME up or down arrow button to change the delay time from 1 hour to 24 hours.
3. After 5 seconds, Timer Off indicator light will remain on. The display will show the left time to Timer OFF or the current temperature.

To set the Timer to turn on the air conditioner, keeping the previous settings:

1. Turn on the unit.
2. Press TIMER. Timer On indicator light will flash. The display will show the remaining hours before the air conditioner will turn on.
3. Press the TEMP/TIME up or down arrow button to change the delay time from 1 hour to 24 hours.
4. Timer On indicator light will remain on.

TO SET THE TIMER TO TURN ON THE AC, AND CHANGE THE PREVIOUS SETTINGS:

1. Turn on the air conditioner.
2. Adjust the mode to Fan, Cool, Energy Save or Dehum.
3. For Fan or Dehum mode,adjust the fan speed to High, Med or Low. For Cool or Energy Save mode, adjust the fan speed to High, Med, Low or Auto Cool.
4. Adjust the temperature between 61°F and 86°F (16°C and 30°C).

NOTE: In Fan mode, the temperature cannot be set.

5. Press TIMER. Timer On indicator light will flash. The display will show the remaining hours before the air conditioner will turn on.
6. Press the TEMP/TIME up or down arrow button to change the delay time from 1 hour to 24 hours.
7. Timer On indicator light will remain on.

TO CLEAR TIMER PROGRAM:

NOTE: Air conditioner can be either on or off.

Press TIMER until Timer indicator light turns off.

TO VIEW OR CHANGE THE REMAINING TIME (IN HOURS):

TIMER OFF

1. Press the TEMP/TIME up or down arrow button to increase or decrease the time.
2. After 5 seconds, the display will show the remaining time to Time OFF or the current temperature.

TIMER ON

1. The display will show the remaining time.
2. Press the TEMP/TIME up or down arrow button to increase or decrease the time.
3. After 5 seconds, the display will show the remaining time to Timer ON.

SLEEP

1. Press the TIMER button to choose Sleep mode. The indicator light will turn on.
2. The temperature will increase by 2˚F 1 hour after the mode is chosen. The temperature then increases another 2˚F after 1 hour. The unit will hold this temperature for 6 hours then stops.
3. To turn off Sleep mode, press the TIMER button until the indicator light is off.

TEMP/TIME

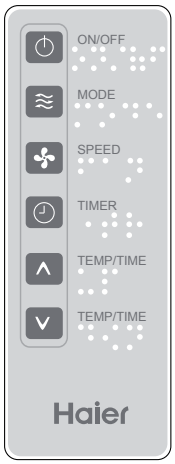
1. Press the TEMP/TIME up arrow button to raise the temperature. Each time you press the TEMP/TIME up arrow button, the temperature will go up 1°F until it reaches 86°F (30°C).
2. Press the TEMP/TIME down arrow button to lower the temperature. Each time you press the TEMP/TIME down arrow button, the temperature will go down 1°F until it reaches 61°F (16°C).

NOTE: After 5 seconds under Fan mode the display will show the current temperature under Cool, Energy Save or Dehum mode the display will show the set temperature.

FILTER RESET

This feature automatically notifies you that the air filter must be cleaned. The indicat or light will come on after 240 hours of operation.Clean the air filter(refer to Care and Cleaning),place it back in the front panel, and press the Filter Reset button. The light will turn off.

Using the Remote Cotrol



Remote control may differ in appearance from the image shown.

NOTE: Remove and discard protective film prior to use. The remote control runs on one CR2025 battery (included). Replace battery after 6 months of use,or when the remote control starts to lose power. To change battery, first remove screw on back panel of remote.

POWER

Press ON/OFF to turn on the air conditioner.

Mode

Press MODE to choose Fan, Cool, Energy Save or Dehum.

Speed

Press SPEED to choose High, Med, Low or Auto Cool.

TIMER

To set the air conditioner to turn off after a set amount between 1 hour and 24 hours (unit must be ON):

1. Press TIMER. Timer OFF indicator light on the air conditioner control panel will flash.
2. Press the TEMP/TIME up or down arrow button to change the delay time from 1 hour to 24 hours.
3. After 5 seconds, Timer OFF indicator light on the air conditioner control panel will remain on.

TO SET TIMER TO TURN ON THE AIR CONDITIONER, KEEPING PREVIOUS SETTINGS:

1. Turn on the air conditioner.
2. Press TIMER. Timer On indicator light on the air conditioner control panel will flash
3. Press the TEMP/TIME up or down arrow button to change the delay time from 1 hour to 24 hours.
4. After 5 seconds, Timer On indicator light on the air conditioner control panel will remain on.

TO SET TIMER TO TURN ON THE AIR CONDITIONER, AND CHANGE THE PREVIOUS SETTINGS:

1. Turn on the air conditioner.
2. Adjust the mode to Fan,Cool,Energy Save or Dehum.
3. For Fan or Dehum mode,adjust the fan speed to High,Med or Low. For Cool or Energy Save mode,adjust the fan speed to High,Med, Low or Auto Cool.
4. Adjust the temperature between 61°F and 86°F (16°C and 30°C).

NOTE: In Fan mode, the temperature cannot be set.

5. Press TIMER. Timer On indicator light on the air conditioner control panel will flash. Display will show remaining hours before the air conditioner will turn on.
6. Press the TEMP/TIME up or down arrow button to change the delay time from 1 hour to 24 hours.
7. Timer On indicator light on the air conditioner control panel will remain on.

TO CLEAR TIMER DELAY PROGRAM:

NOTE: Air conditioner can be either on or off.
Press TIMER until Timer indicator light turns off.

TO SEE OR CHANGE THE REMAINING TIME (IN HOURS):

TIMER OFF:

1. Press the TEMP/TIME up or down arrow button to increase or decrease the time.
2. After 5 seconds, the display on the air conditioner control panel will show will show the remaining time to Timer Off or the current room temperature.

TIMER ON:

1. Display on the air conditioner control panel will show remaining time.
2. Press the TEMP/TIME up or down arrow button to increase or decrease the time.

SLEEP

1. Press the TIMER button to choose Sleep mode. The indicator light will turn on.
2. The temperature will increase by 2˚F 1 hour after the mode is chosen. The temperature then increases another 2˚F after 1 hour. The unit will hold this temperature for 6 hours then stops.
3. To turn off Sleep mode, press the TIMER button until the indicator light is off.

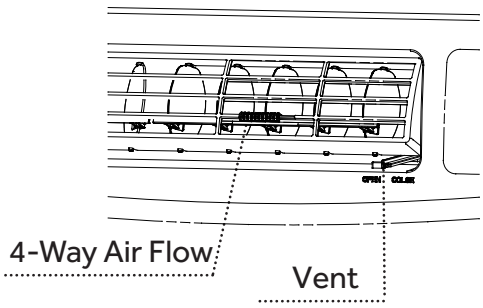
TEMP/TIME

- Press the TEMP/TIME up arrow button to raise the temperature. Each time you press the TEMP/TIME up arrow button,the temperature will go up 1°F until it reaches 86°F (30°C).
- Press the TEMP/TIME down arrow button to lower the temperature. Each time you press or hold the TEMP/TIME down arrow button, the temperature will go down 1°F until it reaches 61°F (16°C).

CHANGING THE AIR DIRECTION

The air directional louvers let you control the direction of the airflow. The airflow can be directed up-down or left to right.

Vent: The Fresh Air vent allows the air conditioner to recirculate inside air, draw fresh air into the room, and exhaust stale air to the outside.



7. Abnormity Diagnose

If air conditioner does not operate:

Check if unit is plugged in. The plug may have come loose.

Check if the unit is in the :Off" mode.

Air from air conditioner is warm:

The A/C setting may need to be raised.

Ice formation on cooling coils:

The outside temperature is too cold. Set the unit on "fan only" setting to defrost ice.

The temperature setting may be too cold.

The unit BTU may be too high for the room.

Air conditioner is working but room is not cooling:

The room may have appliances that produce heat. Use an exhaust fan to remove excess heat.
Redirect the airflow. Remove any obstacles.

All doors and windows need to be closed so cool air does not escape the room.

The air filter may need cleaning.

The unit BTU may be too low for the required cooling area.

On extreme hot & humid days, air conditioners may take a little longer to cool.

Vent may be in the open position. Vent has to be closed for optimum cooling.

Air conditioner is making noise when cooling:

You may hear sounds of air movement, water, compressor clicking on and off or window vibrations.

Please read Operating Guide - Normal Operating Sounds.

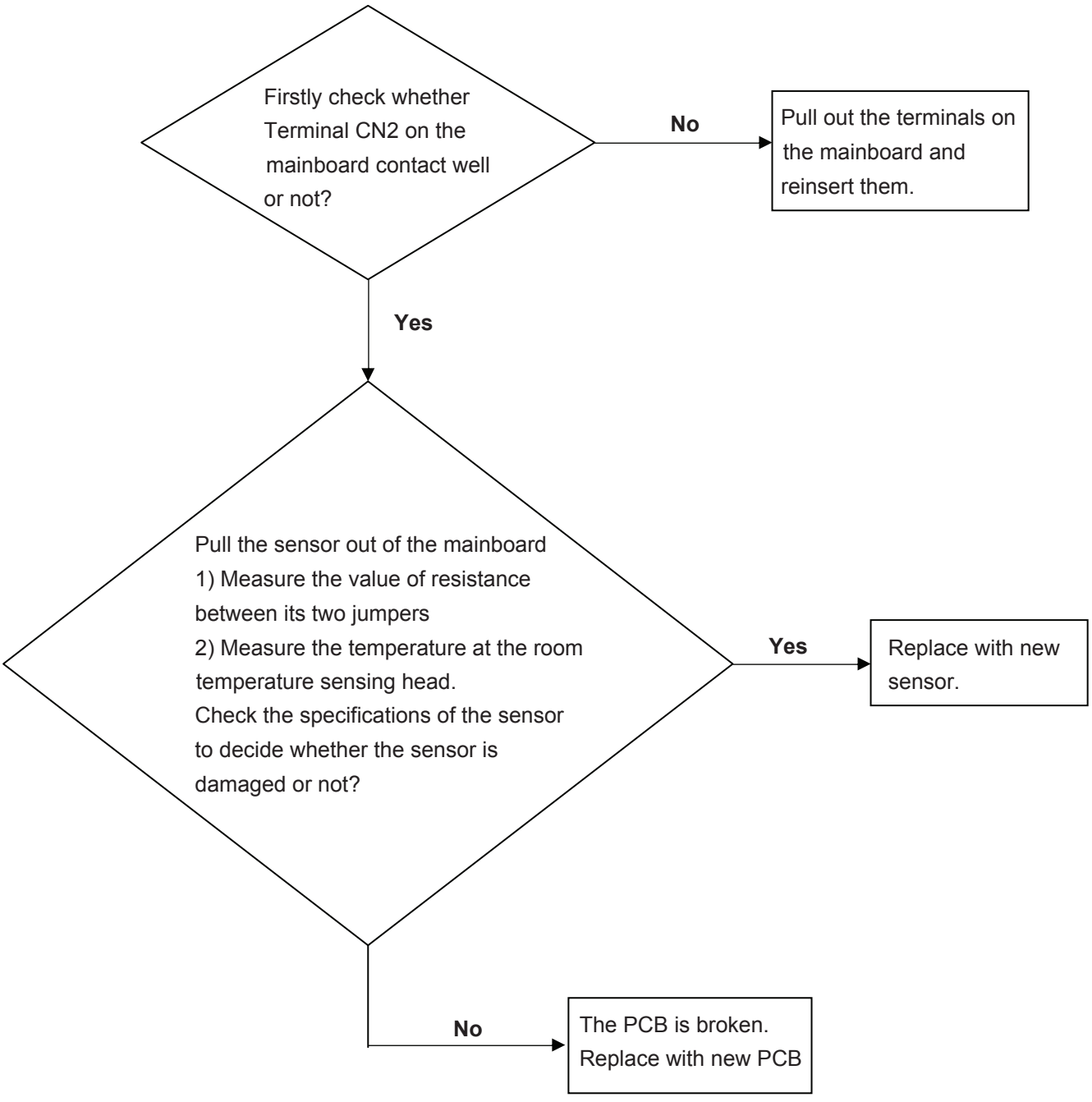
Water in the air conditioner cabinet:

This is normal, as your air conditioner not only cools but also dehumidifies the air. If there is water dripping inside the room, check the installation of the unit. The unit may need to be reinstalled.

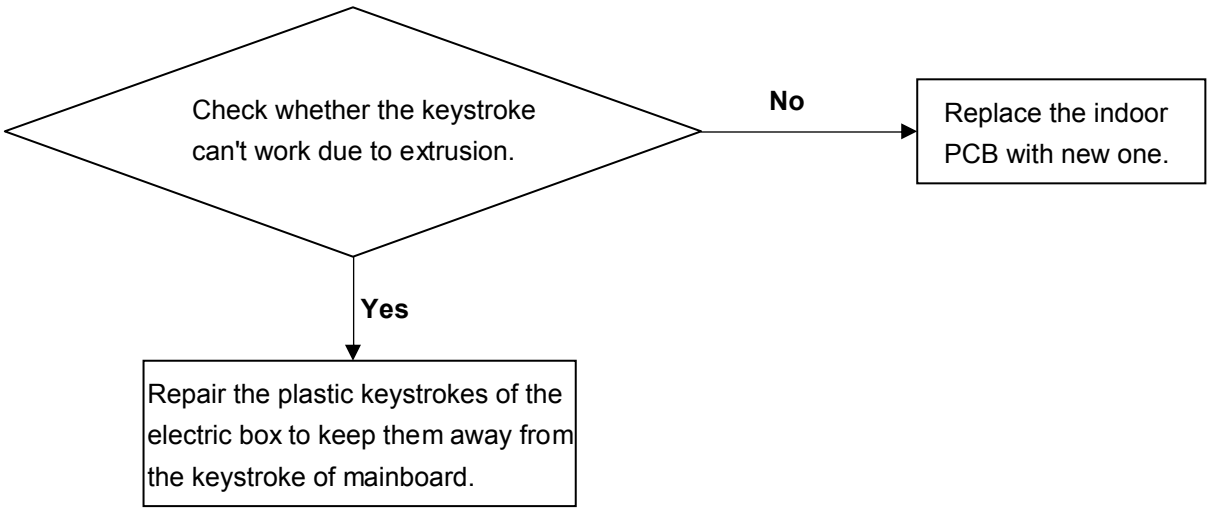
Trouble shooting:

Indoor	Possible Reasons
E0	1) Room-temperature sensor is broken. 2) Indoor PCB is damaged.
E1	1) Connection is bad. 2) Indoor PCB is damaged.

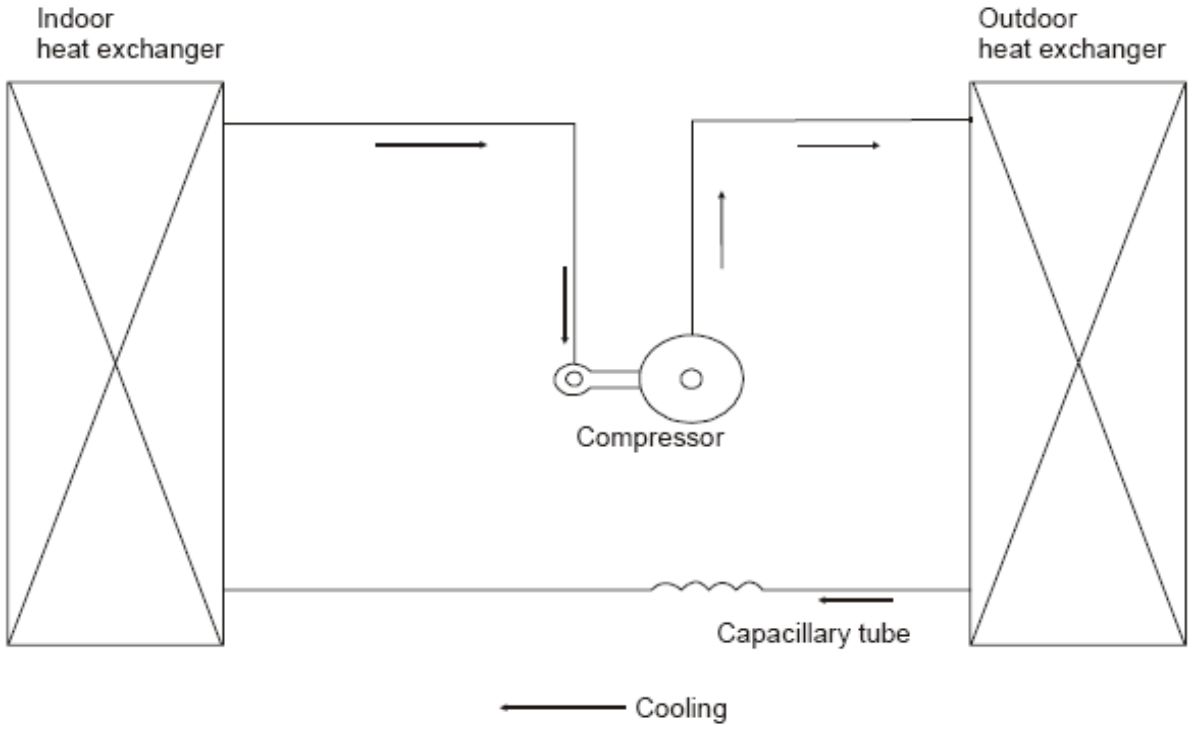
E0: Room temperature sensor malfunction


Firstly check whether Terminal CN2 on the mainboard contact well or not?
No
Pull out the terminals on the mainboard and reinsert them.
Yes
Pull the sensor out of the mainboard
1) Measure the value of resistance between its two jumpers
2) Measure the temperature at the room temperature sensing head.
Check the specifications of the sensor to decide whether the sensor is damaged or not?
Yes
Replace with new sensor.
No
The PCB is broken.
Replace with new PCB

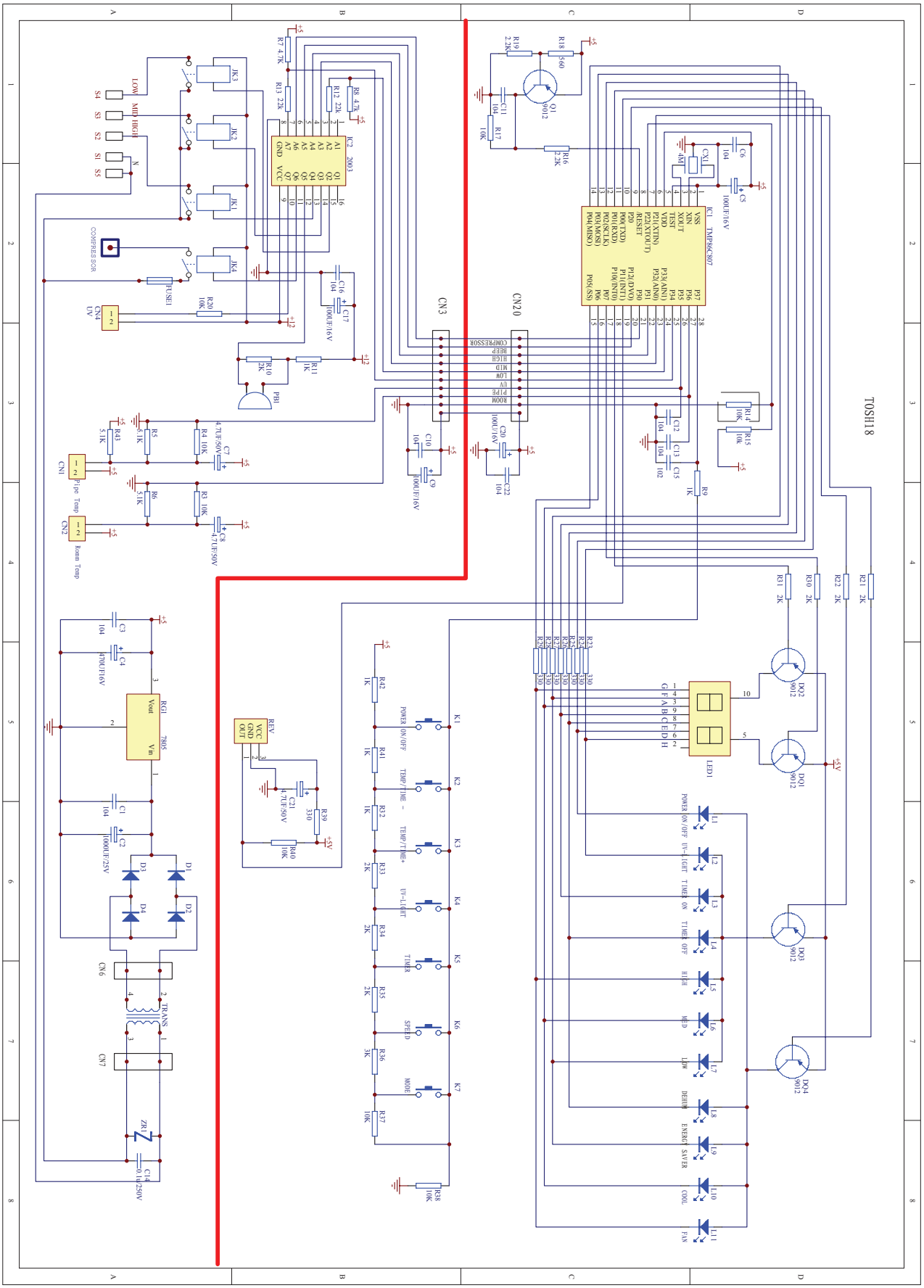
E1: Bottom malfunctions


Check whether the keystroke can't work due to extrusion.
No
Replace the indoor PCB with new one.
Yes
Repair the plastic keystrokes of the electric box to keep them away from the keystroke of mainboard.

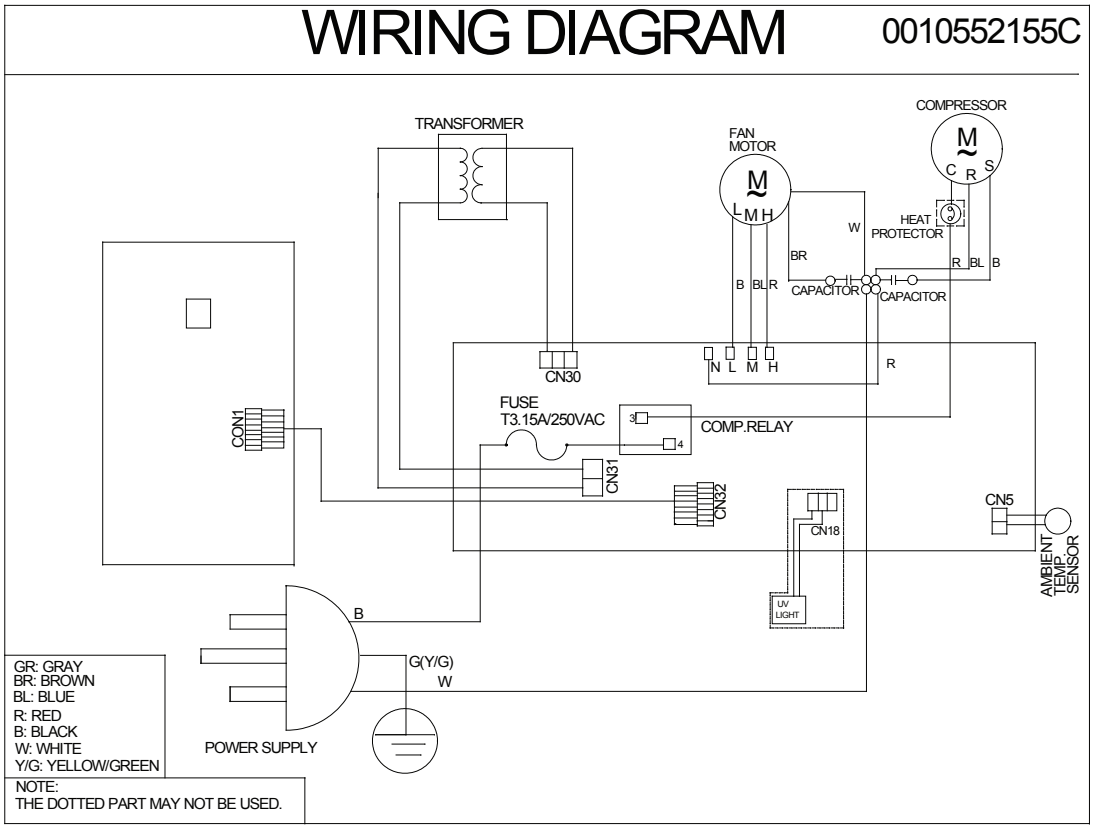
8. System Flow Chart



9. Circuit Diagram



10. Wiring Diagram



Sincere Forever

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